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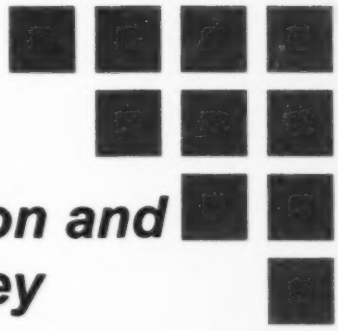


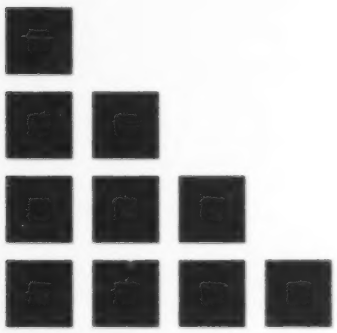
The Adult Education and Training Survey

Measuring Motivation and Barriers in the AETS: A Critical Review

R-01-9-2E

by
Kjell Rubenson
November 2001

Research Paper



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Abstract

This review critically analyses how motivations and barriers to lifelong learning are being addressed in the 1998 Adult Education and Training Survey (AETS). It adopts a thorough multivariate analysis of links between training barriers and motivation and the socio-economic and demographic characteristics of survey respondents. The scholarly literature and available survey instruments are also reviewed.

Analysis of the AETS indicates that Canadians are inclined to participate in training more for job or career-related purposes, particularly to upgrade their skills for current jobs, than for personal reasons. Institutional barriers to training are mentioned slightly more often than situational barriers. The review points to shortcomings in the AETS design and offers recommendations as to how these can be addressed.

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Foreword

The Adult Education and Training Survey (AETS) is Canada's most comprehensive source of data on individual participation in formal adult education and training. In addition to measuring the incidence and intensity of formal adult education and training in Canada, the AETS provides socio-economic and demographic profiles of both participants and non-participants. The survey also provides information on the types, duration and location of training that individuals receive and identifies barriers faced by individuals who wish to take some form of training but cannot. It provides information on sources and types of support for training as well.

The survey sample covers all ten provinces and the sample size is large enough to produce estimates for various sub-populations of interest to policy-makers. The three cycles of the AETS conducted in the 1990s allow policy-makers to monitor changes in the incidence and intensity of adult education and training activities during a period characterised by significant economic changes in Canada.

This research paper is part of a series set up by the Applied Research Branch to expand the research done with the AETS and to provide recommendations for possible improvements to the survey.

1. Introduction

Once promoted on narrow economic grounds lifelong learning is now being discussed more broadly. National and international policy documents and reports from intergovernmental organisations like the European Union (EU), Organisation for Economic Cooperation and Development (OECD), and United Nations Educational, Scientific, and Cultural Organisation (UNESCO), uniformly promote lifelong learning as the foundation for educational and training policy, and there is a growing recognition that contemporary social and economic changes are interrelated. Success in realising lifelong learning is seen as an important factor in promoting employment, economic development, democracy and social cohesion. Two main issues are at the centre of the current interest in lifelong learning. First is the concept of active citizenship, defined as an ability to participate in all spheres of social and economic life, have a fair say in decisions, and belong to the society in which one lives. The second is economic, and relates to international competitiveness and employability. When we consider the central role that lifelong learning is assumed to play in the overall welfare of individuals, communities and society, then the readiness of adults to engage in it becomes a key issue. There is a new urgency to develop a better understanding of why some adults participate in lifelong learning and others do not. It is in this context that this paper, commissioned by Applied Research Branch, Human Resources Development Canada, is presented. Its purpose is to critically analyse how motives and barriers to lifelong learning are presently being addressed in the Adult Education and Training Survey (AETS).

The review will:

- Assess the limitations of the procedures used in measuring barriers and motives. It extends previous work on the AETS by adopting a more thorough multivariate analysis of links between training barriers and motivations and the socio-economic and demographic characteristics of participants and non-participants in training.

- Review the scholarly literature on barriers and motivation, and instruments used in other similar large scale surveys on adult learning, in order to provide recommendations for revisions to the AETS.

The 1998 Adult Education and Training Survey was conducted as a telephone supplement to the January 1998 Labour Force Survey. Proxy responses were not permitted in the AETS. The total sample in the 1998 AETS was 39,217. The target population in the AETS included only those 17 years of age and over. Following the Statistics Canada definition of adult learners (Statistics Canada, 2001, p. 8) the population used in this report excludes all regular, full-time students, except the following: full-time students subsidized by employers; full-time students over 19 enrolled in elementary or secondary programs; and full-time students over 24 enrolled in post-secondary programs. All other full-time students in the age range 17 to 24 are excluded.

The analysis begins with the main findings of the AETS and a critical discussion of how it measures motivation and barriers. This will be followed by a review of certain conceptual frameworks and other survey instruments that may inform a redesign of these sections of the AETS survey.

2. Measuring Motivation

The AETS is designed around a simplistic division. Respondents may choose between two main reasons for participating in adult education and training; either job or career related purposes; or education for personal interest, see Box A.

Box A.

CQ14: What was the MAIN reason you took this course? Was it for...

1. A current or future job?	Go to cq15
2. Personal interest?	Go to cq 16
3. Other	

As shown in Box A, depending on which of the two main motives the respondent chose there was a specific follow up question probing the reasons for participating in education and training. Those choosing job or career reasons were asked:

CQ15: *When thinking about the reasons you took this course which of the following did you consider very important, somewhat important, somewhat unimportant, or very unimportant. How important did you consider…*

- Upgrading your knowledge or skills for your current job?
- Upgrading your knowledge or skills for a different or future job?
- Advancing your position at work?
- Acquiring formal qualification?
- Legal or professional requirements?

Those that indicated they participated for personal reasons were subsequently asked:

CQ16: *When thinking about the reasons you took this course which of the following did you consider very important, somewhat important, somewhat unimportant, or very unimportant. How important did you consider...*

- Upgrading your knowledge or skills?
- Acquiring formal qualification?
- Personal development?
- Personal health or fitness?
- Being with friends/wanting to meet new people/attending social activities?

Results of the survey indicate that Canadian adults are more inclined to participate for job or career related purposes (19.3 percent of the adult population) than for personal interest (8 percent of the adult population). This is especially the case for those taking full programs of study (86.6 percent mention job or career related reasons) compared to people enrolling in single courses (74.4 percent).

In order to examine more closely the relationships between participation in AET, motives, and various background characteristics we conducted multivariate analysis using odds ratios. According to this procedure differences are expressed in terms of the likelihood of individuals from various groups to participate. An odds ratio of 1 represents equal odds of respondents receiving and not receiving adult education and training. Coefficients with values below 1 indicate less chance of taking education or training, compared to a reference category for which the coefficient is set to 1. Similarly coefficients greater than 1 represent, in comparison to the reference category, an increased chance (Hosmer and Lemeshow, 1989). For the purpose of the gender, age and level of education analysis presented in Table 1 the likelihood (odds ratio) for the categories "female," "17-24 age group" and "some elementary or high school" were set at 1. Because differences in participation and education are related to other factors, such as age and labour force participation, an adjusted odds ratio is also calculated. In the case of Table 1, the adjusted odds coefficients present the likelihood of different age groups participating in education and training when we have controlled for differences between the age categories in gender, educational level, employment status, firm size and industry sector.

Table 1 **Likelihood of participation in job-related or personal interest-related education and training by background characteristics, 1997, Canada**

		Training or education taken for job- or career-related purpose			*Training or education taken for personal interest*		
	n	*%*	*Odds*	*Adj. Odds*	*%*	*Odds*	*Adj. Odds*
Gender							
Female	16174	20.6	1.00	1.00	12.0	1.00	1.00
Male	15540	21.6	1.06 **	1.03	7.5	0.60 **	0.62 **
Age Group							
17-24	2920	30.8	1.00	1.00	12.9	1.00	1.00
25-34	6673	30.6	0.99	0.63 **	12.6	0.97	0.73 **
35-44	7451	27.3	0.84 **	0.53 **	10.5	0.79 **	0.62 **
45-54	5800	23.7	0.70 **	0.44 *	10.2	0.77 **	0.60 **
55-64	3755	8.4	0.21 **	0.20 **	7.6	0.56 **	0.51 **
65 and over	5113	0.5	0.01 **	0.03 **	4.5	0.32 **	0.33 **
Educational level							
Some elementary or secondary	8523	6.8	1.00	1.00	4.8	1.00	1.00
Secondary completed	6260	16.0	2.62 **	1.46 **	7.5	1.62 **	1.36 **
Some post-secondary	2616	29.4	5.70 **	3.04 **	11.6	2.62 **	2.02 **
Post-secondary certificate or diploma	9290	26.5	4.94 **	2.70 **	11.1	2.48 **	2.06 **
University degree	5024	37.3	8.18 **	3.78 **	17.8	4.31 **	3.26 **

Notes: Estimates were based on the respondents representing adult population aged 17 and over, excluding all regular, full-time students aged 17 to 24 except 1) those subsidized by employers; 2) full-time students over 19 enrolled in elementary or secondary programs and 3) full-time students over 24 in post secondary programs.Variables included in the adjusted odds models were age, gender, educational level, employment status, firm size, and industry sector.

* $p<.05$; ** $p<.01$ level of statistical significance.

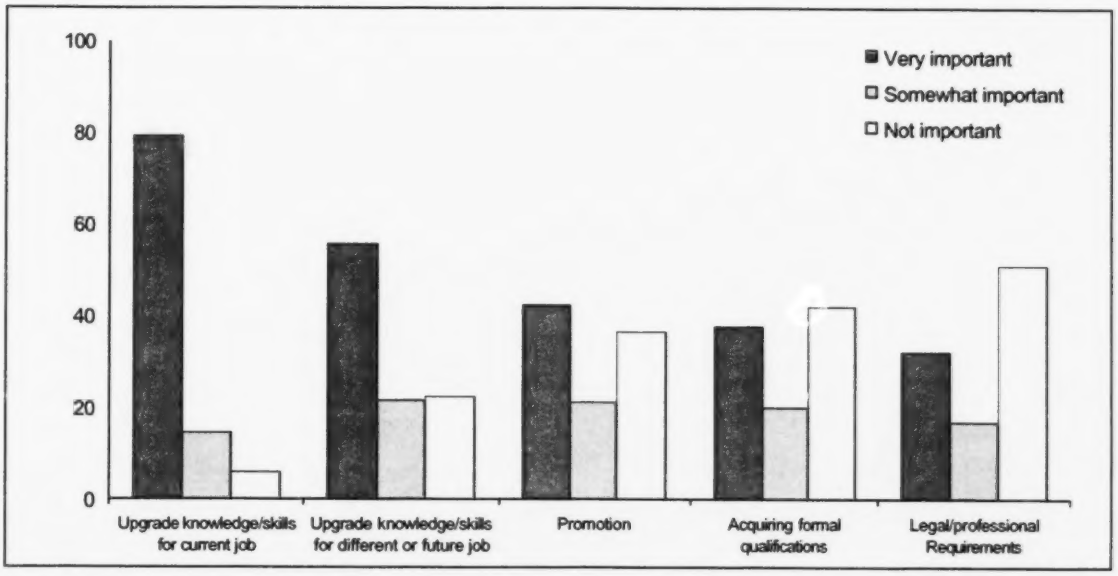
These results confirm what has been reported in previous analyses of the AETS. Thus, participation varies significantly by age, educational attainment and type of occupation while overall gender differences are small (see Statistics Canada, 2001). It is worth noting, however, that these relationships vary with regard to motives. Women are slightly less likely than men to participate for job or career reasons, but they are almost twice as likely to enrol out of personal interest. Nevertheless, it should be noted that job or career motives (20.6 percent) still dominate personal interest motives (12.0 percent) among women. The differences between the two sets of motives are larger for men at 21.6 versus 7.5 percent respectively. In other words, only 1 in 13 Canadian men report that they participated in some form of organised adult education and training during 1997 out of personal interest.

Table 1 shows that the motivation to take a course or program for job or career related reasons gradually decreases up to age group 45-54. Thereafter, there is a sharp decline (from 23.7 percent in 45-54 age category to 8.4 percent among those 55-64 years of age). The situation is different for adult education taken for personal reasons. Here the decline after age 54 is much less severe, from 10.2 to 7.6 percent. However, the message that participation in adult education is heavily instrumental is reflected in the fact that even at age 55-64, job or career related motives are as common as personal interest motives.

In contrast to the situation with gender and age, the relationship between educational attainment and participation is very similar, whether education is taken for work related or personal interest purposes. However, if we look at adjusted odds quotes the differences are slightly higher for the latter.

The follow up questions (CQ15 and CQ16) provide a more detailed picture of the underlying motives and reveal not one but several, sometimes interrelated reasons, behind a decision to participate. Figure 1 addresses various job or career related motives.

Figure 1: **Percentage distribution of importance attached to the reasons for taking job-related courses**



Note: The category "Not important" was formed by merging the response categories indicating "Somewhat unimportant" and "Very unimportant."

Similar to findings in the international literature (see e.g. Finbak and Skaalvik, 2001) four out of five Canadian adults that report job or career related reasons are looking to upgrade their skills for a current job. However, approximately one in two indicate that it was very important for them to study in order to find another job. Promotion (42.4 percent), qualification (37.9 percent) and legal/professional requirements (32.0 percent) are other very important reasons given for participating in job related adult education and training. A correlation analysis shows that some of those that are upgrading for current or other job, are also looking at possibilities for promotion (.30, see Table 2).

As is evident in Table 3, both men and women report similar reasons for taking job related courses. There were also no clear differences with regard to educational attainment or type of occupation.

Table 2 **Correlations coefficients for reasons to take job-related or personal-interest courses, 1997, Canada**

Job-related course	Upgrade knowledge/ skills for current job	Upgrade knowledge/ skills for different or future job	Promotion	Acquiring formal qualifications	Legal/ professional requirements
Upgrade knowledge/skills for current job	1.000				
Upgrade knowledge/skills for different or future job	0.127	1.000			
Promotion	0.302	0.373	1.000		
Acquiring formal qualifications	0.095	0.327	0.359	1.000	
Legal/professional requirements	0.117	0.135	0.197	0.386	1.000
Personal-interest course	Upgrade knowledge/ skills	Acquiring formal qualifications	Personal development	Personal health	Social reasons
Upgrade knowledge/skills	1.000				
Acquiring formal qualifications	0.368	1.000			
Personal development	0.443	0.219	1.000		
Personal health	0.125	0.314	0.265	1.000	
Social reasons	0.155	0.215	0.248	0.358	1.000

Notes: Estimates were based on respondents who indicated having taken at least one education or training course in the AETS 1998 survey. All the correlation coefficients were statistically significant at p<.o1.

As expected, participation in education and training to upgrade skills in order to get a different job decreases with age. It is interesting to note, however, that as many as 29.1 percent of those aged 55-64 stated that this was a very important reason to engage in studies. This indicates that among the rather small group in this age bracket that actually participate in education and training, a considerable number are looking for a new job.

The follow up question to those that had indicated that they participated for personal reasons reveals a quite complex picture, see Figure 2.

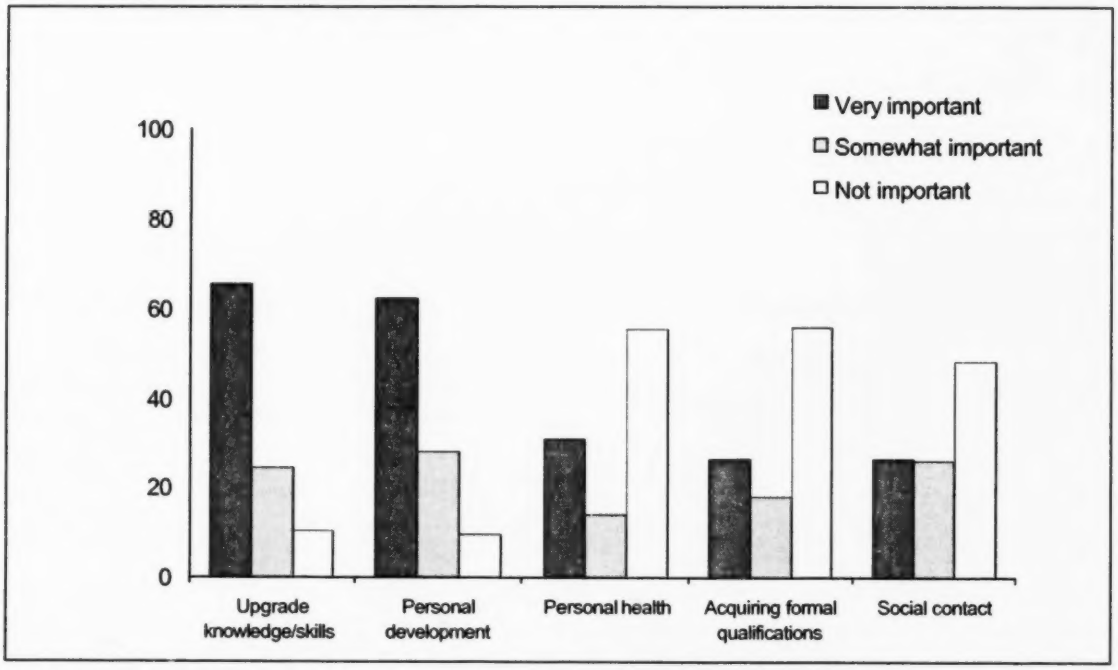
Table 3 **Percentage distributions of importance attached to the reasons for taking job-related courses by personal and job characteristics, 1997, Canada**

		Upgrade knowledge/skills for *current job*		Upgrade knowledge/skills for *different or future job*		Promotion		Acquiring formal qualifications		*Legal/professional requirements*	
	n	Very important	Somewhat important	Very important	Somewhat important	Very important	Somewhat important	Very important	Somewhat important	Very important	Somewhat important
Gender											
Male	2,347	78.0	16.7	54.9	20.2	44.3	21.3	37.3	20.1	32.1	16.0
Female	2,211	81.1	12.7	57.2	22.8	40.3	20.9	38.3	20.2	32.0	17.5
Age group											
17-24	346	74.5	11.0	66.8	22.5	48.4	19.7	53.6	22.9	40.5	20.2
25-34	1,231	78.2	14.5	61.9	21.6	51.3	16.9	42.3	20.7	32.9	17.1
35-44	1,528	80.8	14.7	56.0	22.6	43.0	22.3	36.5	19.8	31.5	16.9
45-54	1,150	80.5	16.2	49.4	20.4	34.7	24.7	31.6	19.5	28.8	17.0
55-64	251	78.3	16.0	29.1	19.2	26.0	20.3	31.3	18.5	32.5	12.1
65 and over*	24	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
Educational level											
Some elementary or secondary	311	75.3	13.8	51.0	25.0	33.9	20.4	35.9	21.5	30.1	13.4
Secondary completed	701	79.1	14.6	60.4	22.1	47.9	20.1	42.3	21.1	31.4	17.0
Some post-secondary	433	78.8	12.7	59.2	18.9	44.6	21.1	43.4	21.0	32.1	15.0
Post-secondary certificate/diploma	1,721	80.7	14.4	56.9	22.1	42.9	21.4	39.2	20.2	30.8	18.1
University degree	1,390	79.3	16.2	52.7	20.5	40.2	21.3	32.6	18.9	34.1	16.8
Employment status											
Employed	4,210	80.8	15.2	54.8	21.8	43.1	21.7	36.8	20.3	31.2	17.6
Unemployed	182	67.0	12.1	69.7	20.4	33.7	14.4	51.7	18.1	46.4	8.8
Not in labour force	166	58.5	8.4	71.6	15.1	34.0	12.1	49.1	18.2	36.2	8.4
Type of occupation											
Professional and managerial	2,385	82.9	14.0	54.5	21.4	42.5	21.0	33.8	20.2	33.8	15.8
Clerical/sales/service	1,222	77.5	16.4	55.7	23.4	46.2	21.5	41.5	20.4	30.9	20.2
Blue collar	814	75.8	16.3	55.8	21.3	37.8	22.4	39.9	21.0	27.8	16.7
Employer-support status											
Received employer support	3,927	82.2	15.2	53.3	22.6	43.4	22.2	35.6	20.7	35.7	17.1
Received no employer support	631	62.3	12.2	72.6	14.7	36.4	13.9	51.7	16.8	31.5	16.8

Notes: Estimates were based on the respondents representing adult population aged 17 and over, excluding all regular, full-time students aged 17 to 24 except 1) those subsidized by employers; 2) full-time students over 19 enrolled in elementary or secondary programs and 3) full-time students over 24 in post secondary programs.

NR Data not releasable according to the confidentiality rules set by Statistics Canada.

Figure 2: **Percentage distribution of importance attached to the reasons for taking personal interest courses**



Note: The category "Not important" was formed by merging the response categories indicating "Somewhat unimportant" and "Very unimportant."

Figure 2 shows two seemingly very different responses. Upgrading skills and personal development (64.2 and 64.3 percent respectively), are considered very important reasons for a decision to participate. With a correlation between the two of .44 (see Table 2) it is obvious that for a large group of participants the two reasons go hand in hand. Formal qualifications, personal health and social contact all play a role, but are rated of considerably less importance than skills and personal development. Table 4 indicates some differences in the importance attached to personal reasons with regard to gender, age or type of occupation.

Social contact is a stronger motive among women and those 65 and over, while males and younger adults, particularly those with a short education, relatively speaking, place more emphasis on upgrading their skills. Men see acquiring formal qualifications as more important than women. As can be expected those 55 and older do not give the same importance to acquiring formal skills or personal development as younger and middle-aged adults.

Table 4 **Percentage distributions of importance attached to the reasons for taking personal interest courses by personal and job characteristics, 1997, Canada**

		Upgrade knowledge/ skills		*Acquiring formal qualifications*		*Personal development*		*Personal health*		*Social contact*	
	n	Very important	Somewhat important	Very important	Somewhat important	Very important	Somewhat important	Very important	Somewhat important	Very important	Somewhat important
Gender											
Male	523	68.3	23.3	31.5	18.5	58.9	27.7	31.6	14.3	20.3	26.0
Female	757	63.4	25.2	22.8	17.7	64.6	28.3	30.4	13.7	30.1	25.6
Age group											
17-24	102	72.9	22.5	38.6	22.8	67.7	23.5	26.5	14.7	21.6	18.6
25-34	319	74.6	18.8	34.8	16.3	65.2	26.6	36.0	11.0	22.6	27.6
35-44	333	65.2	23.1	25.4	19.2	62.6	26.3	30.4	14.0	22.6	28.2
45-54	268	65.6	22.8	33.9	19.0	66.0	24.3	32.5	13.8	22.5	23.2
55-64	142	56.3	33.1	15.5	16.9	58.4	29.6	22.4	11.9	28.2	20.4
65 and over	116	44.8	38.8	14.6	14.5	44.7	47.4	29.9	23.9	42.7	31.4
Educational level											
Some elementary or secondary	156	73.7	17.3	27.6	17.9	63.0	28.7	35.3	14.7	37.9	17.9
Secondary completed	219	63.0	29.7	30.6	20.5	65.3	30.1	37.9	11.4	28.3	24.7
Some post-secondary	108	62.0	24.1	18.3	29.4	52.8	32.4	21.2	26.9	19.4	38.0
Post-secondary certificate /diploma	446	63.2	24.2	27.0	18.2	62.5	25.8	31.7	13.9	24.9	27.1
University degree	351	66.9	24.8	24.7	13.1	62.5	27.8	26.4	11.6	23.3	24.1
Employment status											
Employed	837	66.6	23.2	27.6	17.4	64.9	24.7	32.2	12.5	22.2	22.1
Unemployed	48	66.6	29.2	42.8	14.3	62.4	31.3	51.1	10.6	39.6	27.1
Not in labour force	395	62.6	26.5	21.6	19.7	56.7	34.7	25.3	17.7	33.1	33.2
Type of occupation											
Professional and managerial	398	65.1	22.1	20.9	17.3	64.5	22.9	30.1	10.8	18.7	23.9
Clerical sale service	347	65.2	25.6	46.4	1.7	64.0	26.5	24.5	17.0	24.0	23.3
Blue collar	217	72.8	21.7	36.4	20.3	59.9	30.9	41.5	11.5	22.1	28.1
Others/not in labour force	317	60.9	28.4	20.8	18.9	59.4	34.0	31.2	16.7	40.6	29.1

Notes: Estimates were based on the respondents representing adult population aged 17 and over, excluding all regular, full-time students aged 17 to 24 except 1) those subsidized by employers; 2) full-time students over 19 enrolled in elementary or secondary programs and 3) full-time students over 24 in post secondary programs.

The findings from the motivation questions might seem quite straightforward but they also raise some concerns regarding the adequacy of the way motives are being measured in the AETS. As mentioned above the sequence on motivation is started off by asking the respondents to name *the main reason* for enrolling in organised education or training. This approach provides too simplistic a picture and leaves an impression that hardly anything else matters but job or career related concerns. This is not to deny the dominance of job or career related motives. But it does suggest that other more personal reasons may also be at play which might become more obvious if the initial question was asked in a different way. Finbak and Skaalvik (2001), for example, asked respondents not only to identify the main reason for studying but also to mark the second and third reasons. They found that even though work related motives dominated, personal development was also important. While personal development was the primary motivator for only 20-24 percent of the respondents in all countries (Norway, Spain and the U.K.), it was the second most important motivator for another 40-45 percent.

Similarly, in the AETS, when respondents were asked to do so they identified several factors as being important in their decision to participate. Further, in the follow up question provided to those who enrolled for personal reasons the high correlation between some of the motives speaks to the difficulties in interpreting answers to survey questions of these types. It is unclear, for example, how a correlation of .44 between personal development and upgrade skills should be interpreted. It may be that the respondents have a broader understanding of what is meant by the category "upgrade skills" than what is commonly understood in the literature, where it is seen as a job or career related motive. Another and related interpretation is that the respondents see the two motives as going hand in hand. Although the respondents in this question were asked about personal reasons they may still refer to job and career related motives when answering the section of the question that asks about "upgrade skills." One way to address this problem is to avoid the sharp distinction made in the AETS between job and career related motives on the one hand and personal reasons on the other.

Respondents are often asked via questionnaires to choose between personal or vocational motives. West (1996) objects to these types of questions because no opportunity is given to reflect on whether the question makes sense. In his general criticism of the dominant survey methodologies he notes that they have barely scratched the surface. *While researchers using survey methods can ask large and*

diverse samples of people why they participate in education, they are unable to explore, in all their complexity, the reasons and meanings people themselves give for, and to, their actions, and how these may change over time (op. cit., p. 2).

An advantage with the present design of the AETS is that it provides an apparently parsimonious picture of what drives Canadians to engage in organised learning activities. However, the literature and the analysis presented of the AETS suggest that too simplistic an account emerges of the factors behind participation.

AETS is not the only national survey to adopt the strategy of first asking the main reason, and then posing one or two follow up questions. In these other national surveys, however, e.g. the *Finnish Adult Education Survey 2000* (Statistics Finland, 2000), the initial list generally contains more options,[1] and is not so clearly presented as a dichotomy between work and personal interest. It is common to include motivational factors like hobbies, community service, learning for its own sake and social interaction. Further, work related motives are often broken down into different aspects.

As already mentioned, another common approach used, for example, by Finbak and Skaalvik (2001), asks respondents not only to provide their main motive but also to identify the second or third most important motive. An alternative to this approach, also widely used, asks respondents directly to identify the degree to which a series of listed motives affected their decision to participate. (This is the approach used in the two follow up questions in the AETS.)

Revising the AETS survey by broadening the initial list of motives and following a similar approach to Finbak and Skaalvik would help respond to criticisms that the present survey design is over influenced by narrow economic concerns.

[1] Similar to those in the two follow up questions used in the AETS.

3. Barriers to Participation

In her seminal work *Adults as Learners*, Cross (1981, p. 98), classifies obstacles to participation under three headings:

- situational barriers (those arising from one's situation in life e.g. lack of time because of work, family responsibility, etc.),
- institutional barriers (practices and procedures that hinder participation e.g. fees, lack of evening courses, entrance requirements, limited course offerings, etc.), and
- dispositional barriers (attitudes and dispositions towards learning).

In what follows we use cross-classification as a way to organise the analysis of findings from the AETS and as a point of departure for questioning the way barriers are presently handled in the survey.

In the AETS, respondents were asked if they had ever failed to pursue an interest in taking education and training courses and, if so why. The relative importance of the various deterrents identified in the list of response options is shown in Table 5. Institutional barriers are mentioned slightly more often than situational barriers (71.4 *versus* 64.3 percent). Although it was possible to mention more than one deterrent, the great majority (70.1 percent), gave only two reasons for not enrolling.[2] The picture that emerges from Table 5 corresponds well to what has been found in previous studies on barriers (see e.g. Cross, 1981; Jonsson and Gähler, 1995; Rubenson, 1996; Finbak and Skaalvik, 2001).

Looking at situational barriers, lack of time due to responsibilities in daily life is a major hindrance to the pursuit of education and training. Among Canadians, being too busy at work was the dominant reason for not starting a course (59.4 percent). Only a small group (7.5 percent) saw lack of employer support as a barrier. Family responsibility (not including lack of childcare) was mentioned by about one in five as the reason they did not take the course they had wanted to enrol in. There is a clear gender difference here, with 26.1 percent of women but only 14.6 percent of men mentioning family responsibilities as a hindrance. Gender differences are also evident in terms of childcare, which was noted by 16.7 percent of women but only 3.6 percent of men. Many respondents (41.3 percent) stated they were unable to take a course or program because it was offered at an inconvenient time. Rather than a lack of course

[2] No more than 11.1 percent mentioned four or more barriers.

availability in the evenings or on weekends, it is more likely that the answer refers to the time and responsibility pressures of their daily situation. In Canada, where part-time students constitute approximately half of overall student enrolment, inconvenient scheduling is rarely a hindrance to educational participation.

Table 5 **Percentage distribution of situational, institutional, dispositional and other barriers to participation in adult education or training, 1997, Canada**

	Male	*Female*	*Total*
Situational	**64.9**	**63.8**	**64.3**
Too busy at work	62.2	56.9	59.4
Other family responsibility	14.6	26.1	21.1
Lack of child care	3.6	16.7	11.0
Lack of employer support	8.6	6.5	7.5
Institutional	**70.6**	**72.0**	**71.4**
Program offered at an inconvenient time or location	41.3	41.3	41.3
Too expensive/have no money	37.2	42.7	40.3
Program not offered	10.3	8.7	9.4
Lack of sufficient qualifications	4.2	2.9	3.4
Dispositional	**4.9**	**8.6**	**7.0**
Health	3.5	7.6	5.8
Language	1.4	1.0	1.2
Other barriers	**9.2**	**8.8**	**9.0**

Notes: Estimates were based on the respondents representing adult population aged 17 and over, excluding all regular, full-time students aged 17 to 24 except 1) those subsidized by employers; 2) full-time students over 19 enrolled in elementary or secondary programs and 3) full-time students over 24 in post secondary programs.

As is evident from the data in Table 5, although responsibilities in daily life create situational barriers to participation, institutional barriers are also a factor. High costs are reported as a major barrier by 40.3 percent of those who wanted to take a course but did not. Cost deterrence might partially explain the low enrolment in personal interest related forms of adult education. Women mentioned money slightly more often than men (42.7 and 37.3 percent).

Cost is not the only factor. Qualifying for financial assistance and navigating financial mechanisms can also be barriers for lifelong learners. In general, financial mechanisms are specific to the sector, program or institution in which a student is enrolled. For educational institutions this means that revenues depend on factors such as full-time or part-time modes of study, and whether or not a student belongs to a specific group targeted for support. For the lifelong learner, the fragmentation of educational finance means different rules apply concerning eligibility, level of support, and terms and conditions under which grants or loans are awarded and repaid. As a result, in many cases access and choice will be

determined by the availability of financial support. This is especially so when students forgo income from work in order to undertake organised education or training. Other institutional barriers were seldom referred to in the survey. Neither language nor health posed a large barrier.

More detailed analyses of two of the more significant barriers: "too busy at work" and "too expensive, have no money," have been undertaken, see Table 6.

Table 6 **Likelihood of mentioning being too busy or having no money as the main reasons for not taking training or education by gender, age group and other personal characteristics, 1997, Canada**

		Being too busy at work or job			*Having no money*		
	n	%	Odds	Adj. Odds[a]	%	Odds	Adj. Odds[b]
Gender							
Female	3,558	42.7	1.00	1.00	44.2	1.00	1.00
Male	3,017	54.0	1.57 **	1.18 **	37.9	0.77 **	1.02 **
Age Group							
17-24	616	43.2	1.00	1.00	54.5	1.00	1.00
25-34	1,842	45.4	1.10	0.63 **	47.1	0.74 **	1.30 *
35-44	2,094	56.0	1.67 **	0.98	40.3	0.56 **	1.14
45-54	1,307	53.0	1.48 **	0.83	35.5	0.46 **	0.97
55-64	430	36.0	0.74 **	0.71 *	29.5	0.35 **	0.56 **
65 and over	287	9.1	0.13 **	0.43 **	26.9	0.31 **	0.48 **
Educational level							
Some elementary or secondary	885	30.8	1.00	1.00	52.4	1.00	1.00
Secondary completed	1,159	44.9	1.82 **	1.22	41.6	0.65 **	0.72 **
Some post-secondary	692	40.9	1.55 **	1.03	44.5	0.73 **	0.77 *
Post-secondary certificate or diploma	2,342	50.2	2.26 **	1.31 **	42.3	0.67 **	0.81 *
University degree	1,496	59.9	3.34 **	1.71 **	31.5	0.42 **	0.61 **
Type of job							
Part-time	883	42.4	1.00	1.00	47.7	1.00	1.00
Full-time	4,052	63.8	2.40 **	2.27 **	35.4	0.60 **	0.98
Participation status							
Non-participants	3,745	41.7	1.00	1.00	42.5	1.00	1.00
Took both program and course	325	57.5	1.90 **	1.68	41.2	0.95	0.96
Took program only	492	50.0	1.39 **	1.45	49.6	1.33 **	1.13
Took course only	2,013	57.3	1.88 **	1.25	37.0	0.80 **	1.11
Income level (dollars)							
50,000+	1,126				21.0	1.00	1.00
under 15,000	1,828				59.0	5.43 **	4.77 **
15,000-24,999	999				49.7	3.73 **	3.17 **
25,000-34,999	974				35.2	2.04 **	1.85 **
35,000-49,999	1,084				32.4	1.81 **	1.67 **

Notes: Estimates were based on respondents who indicated that they wanted or needed training or education but did not take it for a variety of reasons.

[a] Adjusted odds models include sex, age, educational level, employment status, total number of kids, type of job, and participation status.

[b] Adjusted odds models include sex, age, educational level, employment status, total number of kids, type of job, participation status and income group.

* p<.05; ** p<.01 level of statistical significance.

When work situation is controlled for, men are only slightly more likely than women to be prevented from participating due to work commitments. Interference from work is particularly noticeable at ages

35-54 and is linked to career pattern; it is particularly noticeable among the well educated. Turning to cost, Table 6 shows that the financial situation is particularly problematic in the youngest age category but gradually decreases by age, reflecting changes in purchasing power. As incomes increase fees become less of a problem. Those with incomes under $15,000 a year are almost five times more likely to identify lack of money as a barrier, compared to those with incomes of $50,000 or more.

In terms of a policy for lifelong learning for all the implications of the figures in Table 5 are problematic to interpret. In almost all studies of this nature, 'lack of time' emerges as the dominant barrier, but it is a vague concept. Time is not an endless resource. People have to make choices regarding how they want to spend it. This is not to deny that because of work and family some people may have very little discretionary time. But for many people mentioning lack of time is mainly a cipher for the value they ascribe to education and training and the expected outcomes of such activities. Thus it is of interest to note that participants and non-participants mentioned situational barriers to about the same extent. This is also the case with institutional barriers except participants tend to report these slightly more often. Jonsson and Gähler (1996) found that of people with objective barriers in terms of handicaps, young children, working hours and so on, as many participated in adult education as did not participate. They therefore conclude that: *Instead of barriers, that might have to do with cost, lack of time, it is probably differences in expected rewards that can explain why some choose to participate while others remain outside* (p. 38).

The analytical work on barriers and motivation in the AETS can be further extended by a more detailed analysis and comparison of the profiles of respondents who expressed that they 'needed' (EQ15) or 'wanted' (EQ 17) education that they never came to participate in.[3]

[3] It should be noted that some of these respondents actually did participate in some other form of education or training.

Table 7 **Adults who needed or wanted training or education but did not take it because of barriers, by background characteristics, 1997, Canada**

		Training/education needed for job- or career-related purpose			Training/education wanted for any job-related or personal interest purpose		
	N	*%*	*Odds*	*Adj. Odds*	*%*	*Odds*	*Adj. Odds*
Gender							
Female	16,175	6.5	1.00	1.00	18.5	1.00	1.00
Male	15,540	7.3	1.12**	1.04	15.0	0.77**	0.75**
Age group							
17-24	2,920	5.7	1.00	1.00	17.3	1.00	1.00
25-34	6,674	9.1	1.65**	1.27**	22.5	1.38**	1.16**
35-44	7,451	10.6	1.97**	1.54**	22.2	1.36**	1.17**
45-54	5,801	8.6	1.56**	1.26*	17.5	1.01	0.88*
55-64	3,756	2.8	0.49**	0.55**	10.1	0.54**	0.57**
65 and over	5,113	0.4	0.07**	0.13**	5.3	0.27**	0.37**
Educational level							
Some elementary or Secondary	8,522	2.9	1.00	1.00	8.8	1.00	1.00
Secondary completed	6,261	5.2	1.86**	1.15	15.3	1.88**	1.36**
Some post-secondary	2,616	8.0	2.97**	1.81**	21.3	2.82**	1.97**
Post-secondary certificate or diploma	9,290	9.4	3.51**	2.00**	20.0	2.62**	1.79**
University degree	5,025	10.7	4.09**	2.07**	24.5	3.37**	2.11**
Income level							
Under 15,000	9,849	5.3	1.00	1.00	15.6	1.00	1.00
15,000 -24,999	4,783	6.6	1.27**	0.99	17.1	1.12*	1.03
25,000-34,999	4,203	7.4	1.43**	0.90	19.1	1.28**	1.06
35,000-49,999	4,032	9.9	1.97**	1.13	21.8	1.52**	1.21**
50,000 +	3,774	12.3	2.52**	1.35**	22.9	1.62**	1.30**
Type of job							
Part-time	3,421	7.5	1.00	1.00	21.7	1.00	1.00
Full-time	15,830	9.8	1.33**	1.19*	20.0	0.90*	0.96
Other	12,461	3.0	0.39**	0.41**	11.3	0.46	0.81**
Type of occupation							
Blue collar	6,525	6.8	1.00	1.00	15.2	1.00	1.00
Professional and managerial	7,556	12.7	2.01**	1.61**	25.5	1.91**	1.31**
Clerical sale service	7,823	7.3	1.09	1.05	19.2	1.33**	1.09
Main employment sector[a]							
Private	14,755	8.3	1.00	1.00	19.2	1.00	1.00
Public	3,499	11.9	1.50**	1.30**	24.2	1.35**	1.21**
Self-employed	3,575	9.0	1.10	1.15*	19.8	1.04	1.17**
Others	9,886	2.3	0.26**	0.64**	9.5	0.44**	0.81**
Firm size							
Less than 20	3,366	6.7	1.00	1.00	16.8	1.00	1.00
20-99	2,538	7.5	1.13	1.05	17.1	1.01	0.99
100-500	4,631	10.5	1.63**	1.44**	21.7	1.36**	1.30**
500+	5,282	11.1	1.73**	1.45**	23.6	1.52**	1.37**
Participation Status							
Non-participant	22,917	5.0	1.00	1.00	13.4	1.00	1.00
Participants	8,798	11.8	2.53**	1.60**	25.6	2.22**	1.50**
Total		**6.9**			**16.9**		

Notes: Estimates were based on the respondents representing adult population aged 17 and over, excluding all regular, full-time students aged 17 to 24 except 1) those subsidized by employers; 2) full-time students over 19 enrolled in elementary or secondary programs and 3) full-time students over 24 in post secondary programs.

[a] Variables included in this adjusted odds model were age, gender and education level.

* $p<.05$; ** $p<.01$ level of statistical significance.

Four things stand out in Table 7. First, only a small group (6.9 percent) state they have been unable to participate in studies needed for job or career related reasons. The present supply of adult education and training seems to serve the workforce well, therefore, and satisfies the challenges of the knowledge economy. A less optimistic interpretation, however, is that a substantial segment of the workforce is working under conditions that fail to stimulate their interest in organised learning activities. They see little to be gained by participating. Accordingly, working conditions, combined with a general negative attitude to lifelong learning would explain the low, unmet need of 6.9 percent. Achieving a better understanding of the results would require a more detailed description in the AETS of the competencies needed to do the present job, the individual's assessment of their own competencies, and their future career plans (see the discussion below).

Second, while only 6.9 percent had unmet *needs* linked to job or career, 16.9 percent had *wanted* to take education or training but had been unable to do so. The lack of follow up questions addressing the motives behind wants makes it difficult to interpret the big discrepancies. One reason for the difference might be that while the question on needs was restricted to job related training, the question on wants referred to any kind of adult education.

Further, it might be more common to have a general desire for education and training, for example, than an actual need.

Third, those that did not participate at all in education and training were less likely than those that did to express an unmet need and/or want (5.0 percent and 13.4 respectively).

Fourth, the profile of those 'needing' and those 'wanting' training is very similar. In both instances the 'law of inequality' is noticeable. The group between 25-54 years are better educated with well paying jobs in professional and managerial positions. This is the group that had wanted or needed to participate but for various reasons had been unable to do so. The differences for unmet needs are somewhat more pronounced than for unmet wants. An exception is gender; women were more likely than men to have been prevented from participating in a 'wanted' activity.

Inequalities become even more pronounced in the profile of those active labour force respondents who neither participated in organised adult education or training nor expressed any needs or interest in it.

Table 8 **Likelihood of being non-participants who neither needed nor wanted training or education, by background characteristics, 1997, Canada**

	Likelihood of being non-participants who neither needed nor wanted training or education			
	n	%	Odds	Adj. Odds[2]
Gender				
Female	9,541	46.3	1.00	1.00
Male	11,311	54.2	1.37**	1.23**
Age group				
17-24	2,162	46.6	1.00	1.00
25-34	5,685	44.7	0.92	1.30**
35-44	6,365	49.7	1.13*	1.59**
45-54	4,742	53.1	1.30**	1.85**
55-64	1,858	68.5	2.49**	3.16**
65	74	77.0	3.81**	4.71**
Educational level				
University degree	4,156	34.5	1.00	1.00
Some elementary or Secondary	3,455	71.2	4.69**	3.83**
Secondary completed	4,341	59.9	2.84**	2.60**
Some post-secondary	1,851	43.6	1.47**	1.42**
Post-secondary certificate or diploma	7,038	46.0	1.61**	1.51**
Income level				
50,000 +	3,461	38.3	1.00	1.00
under 15,000	4,339	54.1	1.90**	1.91**
15,000 -24,999	3,288	54.3	1.91**	1.91**
25,000-34,999	3,460	51.1	1.69**	1.66**
35,000-49,999	3,537	44.1	1.27**	1.26**
Employment status				
Employed	19,007	50.1	1.00	1.00
Unemployed	1,845	55.0	1.22**	1.07
Type of job				
Part-time	3,306	47.1	1.00	1.00
Full-time	15,701	50.8	1.16**	1.11*
Other	1,845	55.0	1.37**	1.16*
Type of occupation				
Professional and managerial	7,187	36.5	1.00	1.00
Clerical sale service	7,162	54.8	2.11**	1.59**
Blue collar	5,941	62.3	2.87**	1.86**
Gender				
Female	9,541	46.3	1.00	1.00
Male	11,311	54.2	1.37**	1.23**
Age group				
17-24	2,162	46.6	1.00	1.00
25-34	5,685	44.7	0.92	1.30**
35-44	6,365	49.7	1.13*	1.59**
45-54	4,742	53.1	1.30**	1.85**
55-64	1,858	68.5	2.49**	3.16**
65	74	77.0	3.81**	4.71**
Educational level				
University degree	4,156	34.5	1.00	1.00
Some elementary or Secondary	3,455	71.2	4.69**	3.83**
Secondary completed	4,341	59.9	2.84**	2.60**
Some post-secondary	1,851	43.6	1.47**	1.42**
Post-secondary certificate or diploma	7,038	46.0	1.61**	1.51**
Income level				
50,000 +	3,461	38.3	1.00	1.00
under 15,000	4,339	54.1	1.90**	1.91**
15,000 -24,999	3,288	54.3	1.91**	1.91**

Table 8 (Continued)

	Likelihood of being non-participants who neither needed nor wanted training or education			
	n	**%**	**Odds**	**Adj. Odds[2]**
25,000-34,999	3,460	51.1	1.69**	1.66**
35,000-49,999	3,537	44.1	1.27**	1.26**
Employment status				
Employed	19,007	50.1	1.00	1.00
Unemployed	1,845	55.0	1.22**	1.07
Type of job				
Part-time	3,306	47.1	1.00	1.00
Full-time	15,701	50.8	1.16**	1.11*
Other	1,845	55.0	1.37**	1.16*
Type of occupation				
Professional and managerial	7,187	36.5	1.00	1.00
Clerical sale service	7,162	54.8	2.11**	1.59**
Blue collar	5,941	62.3	2.87**	1.86**
Total[1]		**50.6**		

Notes: Estimates were based on the respondents representing adult population aged 17 and over, excluding all regular, full-time students aged 17 to 24 except 1) those subsidized by employers; 2) full-time students over 19 enrolled in elementary or secondary programs and 3) full-time students over 24 in post secondary programs .Variables included in the adjusted odds models were age, gender, educational level, employment status, firm size, and industry sector.

* p<.05; ** p<.01 level of statistical significance.

Of those with no high school diploma 71.2 percent showed no interest whatsoever in participating. The equivalent figure for those with a university degree was only 34.5 percent. In other words, blue collar workers, lower income earners, the self employed, and those over 45 years are over represented among those that have not embraced the 'learning society' as measured by the AETS.

Although the AETS does not directly address barriers of a psychological nature, it is possible to sense their crucial role in determining the make up of the Canadian learning society. In all, 60.5 percent of Canadians took no organised education or training during 1997, nor contemplated doing so. Large groups of Canadians do not relate structured learning activities to their everyday lives as citizens, workers, or family members. If people do not perceive participation in adult education as a means of satisfying their needs, and/or if they do not believe themselves capable of engaging in education or training, they will rarely participate unless forced to do so. This fact raises conceptual and methodological issues regarding the assessment of barriers.

4. Conceptual and Methodological Issues

Like the U.S. National Household Education Survey (NHES), the AETS, concentrates almost exclusively on situational and institutional barriers. This is a consequence of posing the question about whether respondents failed to take courses they wanted to take. Implicitly, if respondents indicated an interest in participating it was assumed there were no dispositional barriers. Barriers become interesting only when an expressed wish to participate is thwarted; the role of research then is to discover the impediment. It seems irrelevant to ask individuals not interested in participating about barriers, because without an expressed interest there can be no barriers. But this assumption is problematic. First the expression of interest is not as straightforward an indication of willingness to participate, as it might seem. Second, at a time when lifelong learning for all is promoted as the overall goal, the present design presents an ethical dilemma and raises issues about the role of the state in adult education and training.

Longitudinal research has shown that it is very difficult to predict participation based on expression of interest; not surprisingly, actual participation is a much better predictor of later enrolment than expressed interest. Compared to those who in 1987 had indicated an interest but had not participated, those who had both participated and were interested in further education and training were four times as likely to actually participate at least once during the following eight years (Rubenson, 1996). Note also that of those who initially indicated that they had not participated and had no interest in doing so, more than one-third actually did so at least once during the following eight years. Of those who had participated in the past but were not interested in further participation, 70 percent actually came to enrol. In contrast, only about one half of the non-participants who expressed an interest in taking a course actually did so. Put another way, large numbers of those who indicate no interest will most likely become participants, while a substantial number of people who say they are interested will never show up. It is previous behaviour more than expressed interest that predicts whether or not a person will participate in the future. Carré (2000), provides some insight to this fact when he notes that, over the last 25 years, adult education has taken for granted that adults necessarily volunteer for learning. What is being missed here is that while adults feel pressured to engage in training, they are not necessarily motivated to engage in studies.

To counter their interpretive difficulties in cross-sectional studies, some surveys ask respondents not only whether or not they are interested but also how likely it is that they will participate within a specified time (see e.g. Finbak and Skaalvik 2001).

The ethical dilemma in ascribing barriers stems from a lack of correspondence between the lofty goals for lifelong learning expressed in public policy documents and the way barriers are conceptualised in surveys like the AETS. Discussions on lifelong learning often stress that it should not be equated with lifelong schooling; participation should be voluntary rather than more or less obligatory. We have to accept that people have different interests and not moralise about participation. Middle class values should not be imposed on everyone; individual decisions must be respected. While this line of reasoning is easy to agree with, it is not that straightforward. A closer look at different forms of adult education in terms of income, status, occupation, political efficacy, cultural competence, and similar payoffs indicates relatively greater differences in socio-economic status between participants and non-participants. An increased emphasis on the need for people to engage in lifelong learning creates a policy dilemma in that participation is also increasingly important for society's opportunity structure. If the "system" of adult education assumes that the adult is a conscious, self directed individual who possesses the instruments necessary to make use of available adult education possibilities, it will rely on self selection to recruit participants. This will, by necessity, widen rather than narrow the educational and cultural gaps in society.

In this respect the design issue around barriers in the AETS also raises crucial questions about the relationship between the state and its citizens, and what understanding of democracy should inform state intervention (see Rothstein, 1998). Dworkin (1977:180) argues that the state should treat citizens not only with concern and respect, but also with *equal* concern and respect, making the point for justice in the allocation of resources. However, as Amyarta Sen (1982) stresses, equitable resource allocations are not a sufficient condition for a just society. Instead, he introduces the concept of basic capability equality: the need to take into account, among other things, differences in those abilities that are crucial for citizens to function in society. Nussbaum (1990) discusses the fundamental problem that people living under difficult conditions tend to accept their fate because they cannot imagine any reasonable alternative. She argues that instead of accepting this situation, it is the duty of the state—with due

respect to citizens' rights to choose different ways of life—to see to it that citizens are in a position to make well considered choices. One can argue that the way barriers are currently defined, Nussbaum's concern is not addressed.

From a perspective of equality and efforts to maintain cohesiveness, adult education and training can be promoted as an instrument to create the resources (money, property, knowledge, psychological and physical energy, social relations, security, etc.) to aid individuals in controlling and consciously governing their living conditions. For this to occur it is necessary that individuals with limited means be recruited, and that the education provided directly or indirectly promotes the creation of these resources.

In order to address the lack of attention to dispositional barriers there first needs to be a different understanding of the concept of 'lifelong learning for all,' where 'lack of interest' is seen as part of a cluster of barriers. If one accepts this, the list of deterrents will need to be extended. In the *Finnish Adult Education Survey 2000,* the list contained the standard institutional and situational barriers but also asked:

- Does the lack of interest make it difficult to participate?
- Do you believe training is of no benefit at all to you?
- Fear of failure?
- Employer does not value training enough?
- Little basic education

In the UK National Adult Learning Survey (NALS) 2001 respondents were asked to sort a deck of cards listing barriers. The list contained the following psychological barriers:

- I prefer to spend my free time doing things other than learning
- I don't need to do any learning for the sort of work I do
- I'm not interested in doing any learning, training or education.
- I have difficulties reading and or/writing
- I would be worried about keeping up with other people
- I feel I am too old to learn
- I don't see a point in learning or education
- I would be nervous about going back to school

Similar lists of psychologically oriented reasons for not participating can be found in the Swedish and Norwegian national surveys.

The way the questions on barriers were designed in the AETS it was possible to mention more than one reason for non-participation. However, the great majority gave two or fewer reasons for not enrolling. Thus, a strong argument can be made for first asking the extent to which a certain set of barriers affected their decision and then having them rank the most important deterrents. Further, as recognised in the recent UK survey some of the barriers usually covered in surveys like the AETS also impact on training that people *do* participate in, which suggests that the question ought to be asked of all respondents.

Another, much broader issue than has not been discussed so far has to do with the extent to which the AETS is designed to allow in depth analysis built on a variety of conceptual frameworks.

5. Need for Conceptual Frameworks

Like most other large scale national surveys, the AETS is not designed according to any specific conceptual framework on participation. In this respect it has a lot in common with early research on the topic. Initially, descriptive research was of two kinds: clientele analyses describing the people participating in a certain program; and regional and (to a lesser extent), national surveys comparing characteristics of participants and non-participants. The earlier comparisons between participants and non-participants, despite criticism for lack of theory and sophistication, provide a rich and telling picture of social, cultural and economic differences between participants and non-participants. As Courtney's (1992) review of research on participation reveals, early studies were instigated not only by selfish institutional motives but also by social concerns. The issue of participation in adult education was related to participation in society in general. Furthermore, although this was not developed to any great extent, there existed an embryo of a sociological perspective linking participation to such things as social class. This line of research totally dominated the scene in the early years, but started to decline in the middle 1960's, although appearing occasionally since then.

Fuelled by a perceived lack of scholarly progress in adult education, theoretical concerns (e.g. Boshier, 1971; Mezirow, 1971) came to supersede preoccupation with traditional participation surveys. Most important was a fundamental shift towards an emphasis on conceptual frameworks on motivation. For example, an examination of articles in Adult Education Quarterly from 1970 to 1995, shows three times as many articles addressing motivation as studies that more directly address differences between participants and non-participants. In fact, during this period, there are a few Scandinavian articles in this journal but no major empirical North American studies focusing on the issue of participation/non-participation. This absence suggests that the social awareness of earlier studies was replaced by a concern for theory development. In this process, non-participants seem to have faded away.

The emphasis in the motivational research has long been to create a typology of adult motivation. Departing from Houle's (1961) in depth interviews with a small number of students, a psychometric tradition evolved in the 1970s and several researchers (Boshier, 1971; Burgess, 1971; Morstrain and Smart, 1974) attempted to establish general motivational frameworks. In a second wave the focus

shifted from generalizability to motivational orientations among target groups like ABE (adult basic education) students and re-entry women (see Beder and Valentine, 1990; Clayton and Smith, 1990). Similar psychometric approaches have been used to establish attitudinal orientations to adult education (Darkenwald and Hayes, 1988; Hayes and Darkenwald, 1990) and deterrents to adult education (Scanland and Darkenwald, 1984; Hayes, 1988). According to Darkenwald and Valentine (1985) typologies are seen as useful both in theory building and in improving professional practice. *Typologies provide a way to group individuals according to a variety of characteristics, thus incorporating diverse information into a meaningful conceptual framework* (Hayes, 1988).

Cross (1980:122-24) found many common elements in existing theories of working life and participation in adult education. According to Cross, all:

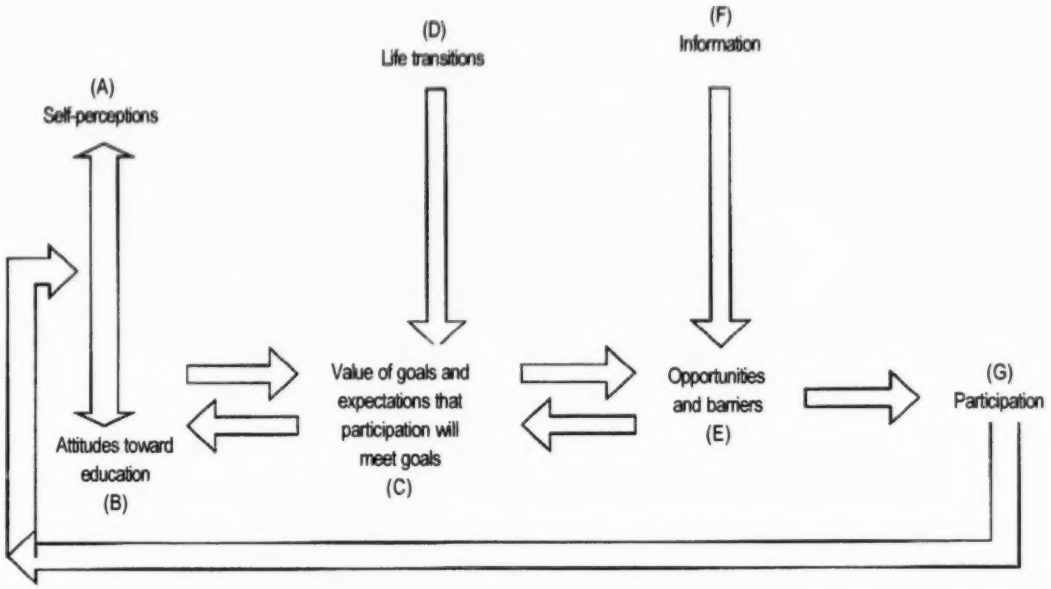
- are interactions
- build on Kurt Lewin's field force analysis
- are "cognitivist"
- refer to reference group theory
- apply the concepts of incongruence and dissonance
- directly or indirectly build on Maslow's model of needs hierarchy

On the basis of her review Cross presents the so called *Chain response-model* (see Figure 3) which incorporates work on learning orientations (Houle, 1961) need press theory (Darkenwald, 1975) and expectancy valence theory (Rubenson, 1977).

The model takes the individual as the starting point and starts by identifying two main constructs: self evaluation (A); and attitude toward education (B). These internal factors are seen to influence the value of goals and the expectation that participation will meet goals (C). Valence and expectations are also affected by life transition and development tasks that confront the individual in various life cycle phases (D). Opportunities and barriers (E) and available information (F) will then modify whether or not an individual will come to participate. This model, like almost all others reviewed by Cross, employs psychological concepts to develop an explanation of why some adults participate while others don't. Cross (1981) argues that this does not mean that societal aspects are ignored; on the contrary, all theories are interactionist, that is they understand participation in terms of interaction between an

individual and his or her environment. However, they tend to neglect the individual's life history. Further they do not directly address how the main constructs in the model are related to and interacting with the broader structural and cultural context (Rubenson, 1989).

Figure 3: **Cross's chain-of-response model**

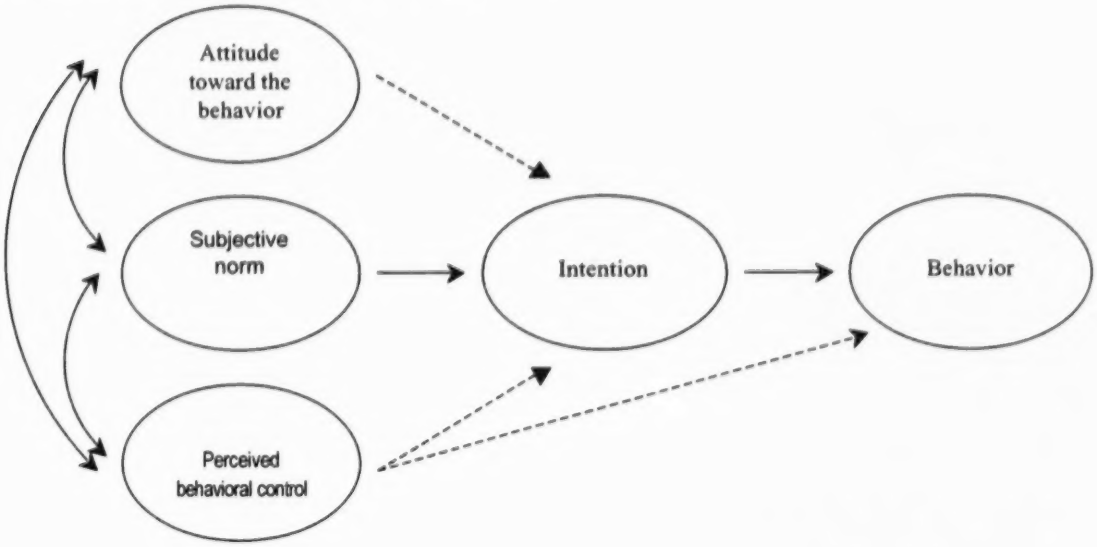


Note: Adapted from K.P. Cross's model in Scanlan, Craig L. Deterrents to participation: An adult Education Dilemma. Information Series No. 308 ERIC Cleavighouse on adult, career and voational Education, Columbus, Ohio. Sponsoring Agency: Office of Educational Research and Improvement (ED), Washington, DC, 1986.

In a comprehensive review—*Adult Education Participation Decisions and Barriers: Review of Conceptual Frameworks and Empirical Studies*—models presented in the adult education literature are shown to have much in common with general socio-psychological models on human behaviour (U.S. Department of Education, 1998). This review does not confine itself to adult education but addresses a wide range of frameworks that can be of value in the context of surveys like the AETS. Rather than present and discuss all the different frameworks reviewed in this study, I refer only to two that reflect the main debates in the literature and further contain the core elements present in several others.

Figure 4, (adapted from U.S. Department of Education, 1998, p. 21), presents the basic structure of a socio-psychological approach to human behaviour.

Figure 4: **Theory of planned behavior**



Source: Icek, Ajzen, B.L. Driver. Application of the theory of planned behavior to leisure choice. Journal of Leisure Research, Vol. 24 No. 3, pp 207-224, 1992

According to Figure 4 the best predictor is the intention to perform an action, in this case participate in adult education. The intention can be predicted by two motivational factors, (a) the person's attitude toward participating as a subjective norm and (b) one factor labelled 'perceived behavioural control.' The latter refers to the extent to which the person has control over the action in question. A criticism of this kind of framework is that it is ahistorical. To predict behaviour of this nature we also need to know the external social, and historical contextual factors as well as the social background.

The human capital perspective is prominent in the education and training literature, although mostly absent in adult education participation frameworks. The underlying assumption is that individuals maximise welfare as they conceive it. Human capital analysis has, as a starting point, that individuals decide on their education by weighing the benefits and costs of this investment (Becker, 1964, 1993). Every action has a price tag in the market and every human act can be reduced to some kind of rational economic calculus of cost and benefit. The probability of participation increases as a function of the benefit/cost ratio. Common cost variables include: tuition, materials and transportation as well as the less tangible value of the time invested in studying. Benefits mostly focus on future monetary gains in the form

of higher salaries but might also address job security, work conditions, and in some rare cases, cultural and other non-monetary gains (U.S. Department of Education, 1998, p. 13).

Although beyond the scope of this paper it should be noted that the *homo economicus* framework has been severely criticised for its strong assumption of rationality. As Dow (1998, p. 13) states: *If we see social structures as being organic and evolutionary, with creative, non-deterministic behaviours alongside behaviour conditioned by habits and institutions, then individuals cannot be modelled according to deterministic rational principles.* Others, such as West (1996), disagree with the economic way of looking at behaviour because it leaves no room for spirituality, love and a greater communal good.

An interesting variation on the cost benefit framework is case based decision theory (Gilboa and Schmeidler, 1995 cited in U.S. Department of Education, 1998, p. 14). The idea is that people remember past problems, how they resolved them, and the outcome of action. When they meet a new problem past experiences of similar problems direct their decisions. The framework does not assume that individuals have beliefs in the absence of data (recalled cases) and therefore does not list all possible costs and benefits as only those in the memory can be used in reaching the decision.

The US review of the NHES notes that the survey's adult education component already collects many demographic and social background variables of interest to economic cost benefit or expected utility frameworks (U.S. Department of Education, 1998, p. 66). This is also the case for the AETS. However, neither survey contains measures of relative expected utility and they are relatively meagre on social psychological variables like intentionality and normativity with regard to adult education. Further, the AETS is weak on external context e.g. the situation at work or in civil society and mainly ignores key past experiences. Knowledge about how the individual interprets the world cannot by itself give an understanding of barriers and behaviour. Only when we also include structural factors and analyse the interaction between them and the individual conceptual apparatus does an interpretation become possible. Participation in adult education, in its broadest interpretation, can be understood in terms of societal processes and structure, institutional processes and structure and individual consciousness and activity.

It is interesting to note that there are surveys that include more developed measures of variables that would be useful in the operationalisation of the key conceptual frameworks referred to above. For example, the Finnish *Adult Education Survey 2000* contains a series of questions on the participants' general views on adult education that are useful in measuring the respondents attitudes to adult education (Statistics Finland, 2000), see Box B.

Box B

Finally, I will read out loud different views on adult education. Tell me whether you agree or disagree with the statements. Just tell me your own opinion as there is no right or wrong answer to the statements.

(Answer alternatives in question 108)

Agree fully
Agree to some extent
Do not agree but do not disagree either
Disagree somewhat
Disagree totally
Don't know

1. Vocational adult education should be focused on the fields where technical development is fastest
2. Employees should take part in the expenses of training related to their work
3. The work tasks are learned at the workplace, not sitting in a classroom
4. In-service training is of more use to the employer than the employee
5. In-service training is most often only a way of passing time for employees
6. Adult education in the working environment should be given above all to the least educated
7. The better the qualifications, the securer the job
8. There will always be jobs that do not require any qualifications or training
9. Good basic education helps in getting a job
10. It is better for the unemployed to be studying or in training than just being unemployed
11. Those who have been in the working life for a long time do not need adult education and training
12. Employees should be able to decide themselves if they want to participate in training or not
13. Society should finance/subsidise vocational adult education
14. Only those that have high qualifications succeed well in the working life
15. A degree proves you are skilled in your trade/occupation
16. Education gives you more self confidence
17. Education is a basic foundation of welfare in Finland

Questions like the above can, together with the suggested list of barriers, be used to develop a construct of the extrinsic utility value of learning. This in combination with variables that define the intrinsic interest value of learning have proven to be good predictors of participation (see Finbak and Skaalvik, 2001).

In view of the demonstrated importance of 'the long arm of the job' to participation (OECD, 1997) it is particularly important to get better measures of factors related to the work context and link these to

relative expected utility and intentionality. Box C contains a rather exhaustive list of examples of these kinds of questions taken from the Finnish *Adult Education Survey 2000* (Statistics Finland, 2000).

Box C

Changes and uncertainty at work, Wage earners only

(Answer alternatives to the following questions)

Very likely
Quite likely
Quite unlikely
Very unlikely
Don't know

How likely do you think it that in the next 2 years you will change occupation?
How likely do you think it that in the next 2 years you will change employer?
Or that you change to different tasks with your present employer in the next 2 years?
How likely do you think it that your present job will change significantly for example in methods or equipment in the next 5 years?

Learning and skills at work

How long do you think it would take for a new employee with the necessary basic training to learn your work tasks on the whole?

A few hours
A few days
A few weeks
A few months
1-2 years, or
Over 2 years?
Don't know

How were you taught your present work tasks?

Did your employer offer you any orientation training?
Did your immediate superior teach you where necessary?
Did your co-workers teach you where necessary?
Did you learn on your own?
Or was it by some other means?
Please specify what the 'other means' were for teaching you to do your job?

Wage earners, entrepreneurs, assisting family members and unemployed with work experience

Changes in the working life can lead to situations where workers feel they have gaps in their knowledge and skills. Have you ever met with such a situation?

Often
quite often
sometimes, or
hardly ever?
don't know

(Answer alternatives to the following questions)

Yes
No
Don't know

Box C (Continued)

In situations like this have you got help from your co-workers or specialists at your workplace?
And have specialists from outside your workplace helped you?
Or has training been of any help in changes in the working life?
Or has reading books and trade publications been of help?
And did you get any help in situations like this from elsewhere?
Please specify where the help came from?

(Answer alternatives to the following questions)

A lot
Quite a lot
To some extent
Not at all
Don't know

To what extent does your present work enable you to learn new things?
To use the knowledge and skills you already have?
To choose your working methods and to develop them?
To regulate your pace of work independently?
To develop your talents and professional skills?
Be given credit for work that has been done well?
To feel that you are a respected member of your work community?
To work together with others (in cooperation, in working groups, as a member of a team)?
To what extent do you have say in the kind of training your employer arranges or supports at your present workplace?

Which one of the alternatives below best describes your work skills?

- You need more training in order to carry out your tasks well
- Present tasks correspond well to your present skills
- Present tasks are too simple, you could perform much more demanding tasks
- Don't know

Basic training here means training leading to a qualification or degree (both vocational and general education)
In your opinion do your tasks require:

- Less,
- More than your basic training qualifies you for
- Does the level required in your tasks correspond to your basic training, or
- Don't know

To what extent are the knowledge and skills required in your present work based on your basic training?
And to what extent are your skills based on additional training in your occupation or work?
To what extent are your knowledge and skills based on work experience?
And to what extent are the skills required in your work based on independent studying in connection with your work?

6. Summary and Conclusions

The purpose of this paper was to assess AETS procedures for measuring barriers and motivations and to provide recommendations for how the present survey can be improved. Previous work was extended by adopting a more thorough multivariate analysis of links between training barriers and motivations and the socio-economic and demographic characteristics of participants and non-participants in training. In addition, the scholarly literature and instruments used in other similar large scale surveys on adult learning were reviewed.

The analyses of the AETS show that:

- Canadian adults are more inclined to participate for job or career related purposes than for personal interest.
- Participation in adult education is mainly instrumental. For example, even at age 55-64, job or career related motives are still slightly stronger than personal interest.
- Women are slightly less likely than men to participate for job or career reasons, but they are twice as likely to enrol out of personal interest.
- Canadian adults that report job or career related reasons are foremost looking to upgrade their skills for a current job. However, approximately one in two indicate the importance of study in order to find another job. Some of those upgrading for current, different or future jobs, are also looking at possibilities for promotion.
- The follow up question to those who participated for personal reasons reveals a quite complex picture. The two dominant motives—upgrading skills and personal development—often seem to go hand in hand.
- Institutional barriers are mentioned slightly more often than situational barriers.
- Among working Canadians, being too busy at work was the dominant reason for not starting a course. Only a small group saw lack of employer support as a barrier.
- Family responsibility was a substantially greater barrier among women than among men.
- High costs are reported as a major barrier particularly among young and low income adults.
- The analysis of the profiles of the respondents who expressed 'needed' or 'wanted' training but did not participate suggests that a substantial segment of the workforce is working under conditions that do not stimulate their interest in participating in organised learning activities.

The data analyses in combination with the review of the scholarly literature and similar international surveys point to some limitations in the present design of the AETS and provide suggestions for how the design may be improved.

- The literature and the presented analysis of the AETS suggest that the existing design might result in too simplistic an account of the factors behind participation. The design can be improved by including more options and asking respondents not only to provide the main motive but also to identify the second or third most important motives.
- A limitation with the present survey is that it concentrates almost exclusively on situational and institutional barriers. Consideration needs to be given to how to strengthen assessment of dispositional barriers.
- To address the lack of attention to dispositional barriers and questions on future interest, some existing conceptual frameworks and questions used in international surveys can provide a fruitful starting point for getting better measures on general attitude as well as intrinsic and extrinsic values of learning.
- The review suggests that in a revised AETS it is particularly important to construct better measures of factors related to the work context and link these to relative expected utility and intentionality.

In conclusion, the AETS already collects many of the variables needed to build a solid foundation for policy decisions as well as more fundamental research on adults' readiness to participate in organised learning. However, the review has also pointed to some serious shortcomings and suggested ways in which these can be addressed within the existing survey,

References

Becker, G. (1964). Human Capital: *A Theoretical and Empirical Analysis with Special Reference to Education.* New York: Columbia University

Beder, H.W. & Valentine, T.V. (1990). Motivational profiles of adult basic education students. *Adult Education Quarterly,* 40, 78-94.

Boshier, R. (1971). Motivational orientations of adult education participants. *Adult Education,* 21, 3-26.

Burgess, P. (1971). Reasons for adult participation in group educational activities. *Adult Education,* 22, 3-29.

Carré, P. (2000). Motivation in adult education: From engagement to performance. In *Proceedings of the 41st Annual Adult Education Research Conference.* Vancouver: University of British Columbia, 66-70.

Courtney, S. (1992). *Why Adults Learn: Towards a Theory of Participation in Adult Education.* London: Routledge

Cross, K.P. (1981). *Adults As Learners.* San Francisco: Jossey-Bass.

Darkenwald, G. & Hayes, E. (1988). Assessment of adult attitudes toward continuing education. *International Journal of Lofelong Education,* 7, 197-204.

Darkenwald, G. & Valentine, T. (1985). Factor structure of deterrents to public participation in adult education. *Adult Education Quarterly,* 35, 177-193.

Dworkin, R. (1977). *Taking Rights Seriously.* London, Duckworth.

Dow, S.C. (1998) Rationalisation in economics: Theory, methodology and action. In Ken Dennis (Ed.) *Rationality in Economics: Alternative Perspectives.* Boston: Kluwer Academic Publishers, 5-15.

Finbak, L. and Skaalvik, E. (2001). *Motivation for and Barriers Against Participation in Adult Education.* Trodheim: NVI.

Gilboa, I. and Schmeidler, D. (1995). Case-based decision theory. *The Quarterly Journal of Economics,* 110:3, 605-639.

Hayes, E.R. (1988). A typology of low literate adults based on perceptions of deterrents to participation in adult basic education. *Adult Education Quarterly,* 39,1-10.

Hayes, E. & Darkenwald, G. (1990). Attitudes towards adult education: An empirically based conceptualization. *Adult Education Quarterly,* 40, 158-168.

Hosmer, D. W. & Lemeshow, S. (1989). *Applied Logistic Regression.* New York: John Wiley and Sons.

Houle, C. (1961). *The Inquiring Mind.* Madison: The University of Wisconsin.

Jonsson, J. & Gähler,M. (1995), Folkbildning och vuxenstudier. rekrytering, omfattning, erfarenheter. *SOU* 1995:141, Fritzes, Stockholm.

Jonsson, J. & Gähler, M. (1996), Folkbildning och vuxenstudier. rekrytering, omfattning, erfarenheter-sammanfattning, in *SOU* 1996:159, Fritzes, Stockholm.

Mezirow, J. (1971). Toward a theory of practice in education with particular reference to the education of adults. *Adult Education,* 21, 135-147.

Morstrain, B.R. & Smart, J.C. (1974). Reasons for participating in adult education courses: A multivariate analysis of group differences. *Adult Education,* 24, 83-98.

Nussbaum, M. (1990). *Aristotelian Social Democracy. Liberalism and the Good.* R. B. Douglass, Mara, G.M. and Richardsson, H.S. New York, Routledge.

Rothstein, B. (1998). *Just Institutions Matter. The Moral and Political Logic of the Welfare State.* Cambridge, Cambridge University Press.

Rubenson, K. (1977). *Participation in Recurrent Education.* Paris: Centre for Educational Research and Innovations. Organisation for Economic Cooperation and Development.

Rubenson, K. (1980). Background and theoretical context. In R. Hoeghielm and K. Rubenson (eds.), *Adult Education for Social Change.* Lund, Sweden: Liber.

Rubenson, K. (1988). Paradigms and ideology in participation research. A comparative analysis. *Proceedings Transatlantic Dialogue,* 1988, 375-380.

Scanlan, C.L. & Darkenwald, G.G. (1984). Identifying deterrents to participation in continuing education. *Adult Education Quarterly,* 34, 155-166.

Sen, A. (1982). *Choice, Welfare and Measurement.* Cambridge, Massachusetts, MIT Press.

Statistics Canada (2001). *A Report on Adult Education and Training in Canada: Learning a Living.* Ottawa: Statistics Canada and Human Resources Development Canada.

Statistics Finland (2000). *Adult Education Survey 2000.* Helsingfors: Statistics Finland.

U.S. Department of Education (1998). *Adult Education Participation Decisions and Barriers: Review of Conceptual Frameworks and Empirical Studies.* Working Paper No. 98-10. National Center for Education Statistics: Office of Educational Research and Improvement.

West, L. (1996). *Beyond Fragments: Adult's Motivation and Higher Education.* London: Taylor & Francis Ltd.